2015 PAVEMENT CONDITION INDEX (PCI) STUDY **EXECUTIVE SUMMARY**

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BISMARCK MUNICIPAL AIRPORT (BIS) BISMARCK, ND

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FEDERAL AVIATION ADMINISTRATION
A.I.P. NO. 3-38-0000-013-2015

NORTH DAKOTA
AERONAUTICS COMMISSION
A STATEWIDE VOICE FOR AVIATION

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Overview

The Airport Pavement Management System (APMS) was developed by the Federal Aviation Administration (FAA) and is intended to provide a consistent and systematic approach to identifying pavement that is in need of maintenance or rehabilitation. The North Dakota Aeronautics Commission (NDAC) developed a customized APMS in accordance with FAA requirements.

An APMS evaluates both the current condition of the pavement as well as predicts a future condition based on the Pavement Condition Index (PCI). This in turn allows the individual airports, the NDAC and the FAA to monitor the condition of the airport pavements and budget for required maintenance to avoid excessive deterioration. The timing of this maintenance or rehabilitation is vital as airport pavement conditions play a crucial role in ensuring the safety of all airport users.

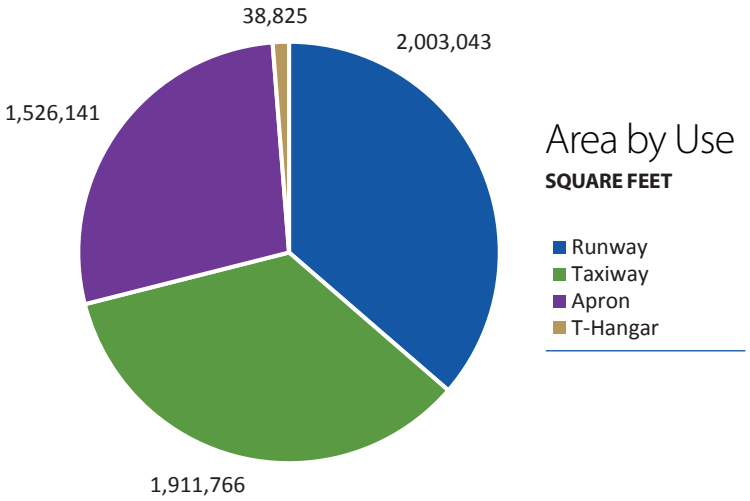
This system is updated every three years to accurately reflect current pavement conditions across the state's airports. In 2012, the APMS was updated to an electronic format to allow the data to be readily available to the airports, the FAA and the NDAC.

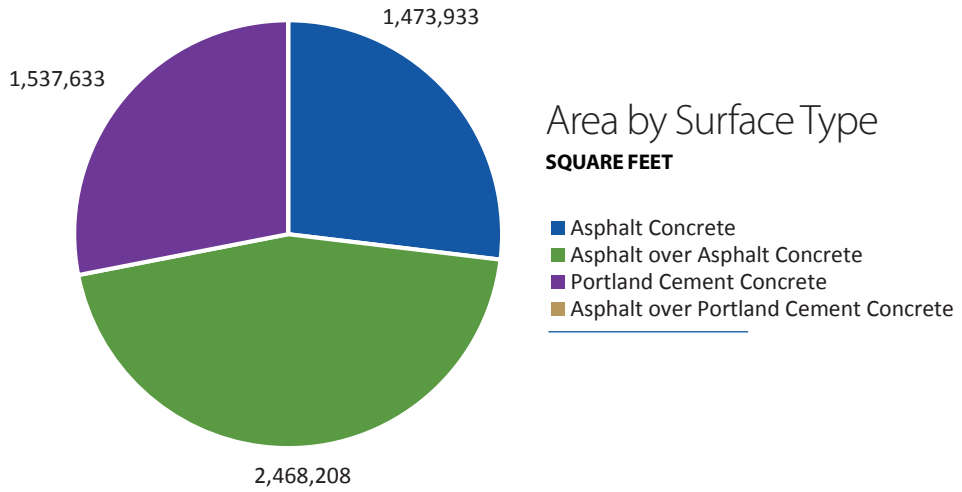
In 2015, Mead & Hunt along with Applied Pavement Technology and EVS conducted the update to the APMS. During the 2015 update, record information collected in the previous three-year cycle has been added to the database. Pavement inspections also have been completed, and additional airports have been added that were not part of the previous study. Functionality changes also have been made to the website itself. The findings and recommendations of the APMS update are included in this report. Full results can be found online on the NDAC website, **www.aero.nd.gov**.

Pavement Inventory

In 2015, a total of 71 airports were assessed for the current project. Of these, 52 were part of the National Plan of Integrated Airport Systems (NPIAS) and 19 were non-NPIAS. NPIAS airports qualify for federal funding. Non-NPIAS airports do not qualify for federal funding and must be funded solely by state and local contributions. Therefore, the FAA only provided funding for pavement inspections and reports for the NPIAS airports as part of this study. NPIAS airports inspected included 7 commercial service airports and 45 general aviation airports. Williston was not inspected as part of the 2015 study due to future relocation of the existing airport. However, Williston's 2012 pavement inventory data was used in the 2015 data analysis and is included as part of the 2015 results. Pavement inventory data includes area, age and condition. Projected costs for Williston were excluded from the funding assessment needs. A PCI of 100 was assumed for all newly constructed pavement or pavement programmed to be reconstructed in the next year.

Bismarck Municipal Airport is a commercial service, NPIAS airport. The airport consists of two paved runways, multiple parallel/connector taxiways, apron and T-hangar pavement. Pavement at the airport is comprised of 1,537,633 square feet of concrete and 3,942,141 square feet of asphalt. Throughout the years, the airport has performed preventative maintenance and carried out a series of rehabilitation/reconstruction projects to sustain and extend the pavement life. The charts below summarize the airport's pavements.



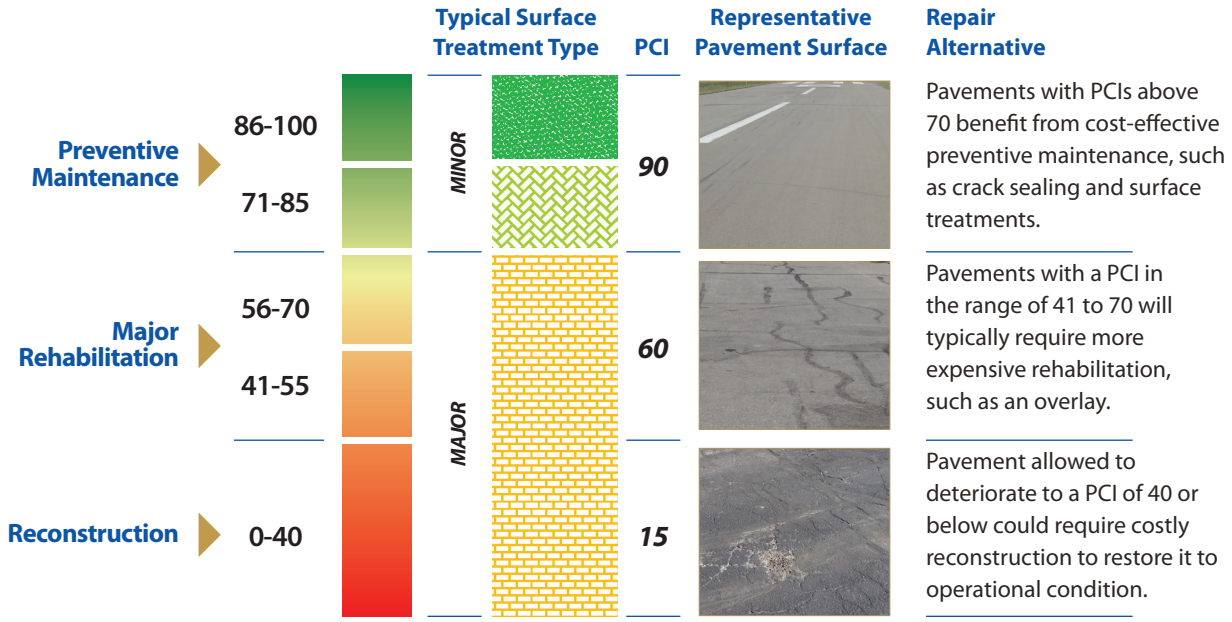


Pavement Evaluation

Pavement Evaluation Procedure

A PCI survey was conducted in accordance with the procedures outlined in American Society for Testing and Materials (ASTM) Standard D5340, *Standard Test Method for Airport Pavement Condition Index Surveys* and the FAA's Advisory Circular 150/5380-6B, *Guidelines and Procedures for Maintenance of Airport Pavements*. A PCI survey consists of dividing pavement into a series of sections, selecting random sections for sampling, and inspecting a given portion of each sample section to determine overall pavement deterioration. Pavement deterioration is based on the quantification of the different types, the severity and the number of distresses present in the sample section. This information is then used to formulate a composite index numerical value that represents the overall pavement condition. This value will range from 0 (failed) to 100 (excellent).

As part of the APMS, the PCI will be used to determine current pavement conditions, predict future conditions, develop a maintenance program and identify the most cost-effective time frame to perform major rehabilitation. The PCI will also aid in tracking and determining causes of deterioration on a pavement. The correlation between a PCI number and a recommended repair is shown in the illustration to the right. The figure also correlates the colors and hatch patterns to the PCI map found on page 10. Preventive maintenance consists of patching, crack sealing and joint sealing. Pavement rehabilitation includes surface treatments and thin overlays. Pavement reconstruction refers to full-depth reconstruction and thick overlays. Minor surface treatments are used to address weathering and low-severity raveling. Major surface treatments are used to address medium- and high-severity raveling.



Typical Distress Types

The FAA Advisory Circular provides a list of specific distresses to be analyzed and recorded when inspecting pavement. Airports in North Dakota are a combination of asphalt concrete (AC) pavement and Portland cement concrete (PCC) pavement with there being slightly more AC pavement than PCC pavement. These two pavement types have unique pavement distresses and repairs. The following is a brief description of commonly observed pavement distresses at North Dakota airports.

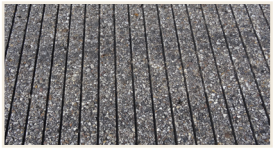
ALLIGATOR (FATIGUE) CRACKING. Alligator (fatigue) cracking is a load-related distress. Alligator cracking is caused by excessive tensile strains at the bottom of the AC layer or stabilized asphalt base layer from repeated aircraft loadings. Alligator cracking typically shows up on the surface as a series of parallel cracks, which eventually interconnect to form a pattern resembling the skin of an alligator.

JOINT SEAL DAMAGE. Joint sealant damage is any condition that enables soil or rocks to accumulate in the joints or allows significant infiltration of water. Accumulation of incompressible materials prevents the slabs from expanding and may result in buckling, shattering, or spalling. A pliable joint filler bonded to the edges of the slabs protects the joints from accumulation of materials and also prevents water from seeping down and softening the foundation supporting the slab. Typical types of joint seal damage are: (1) stripping of joint sealant, (2) extrusion of joint sealant, (3) weed growth, (4) hardening of the filler (oxidation), (5) loss of bond to the slab edges, and (6) absence of sealant in the joint.

LONGITUDINAL AND TRANSVERSE CRACKING. The predominant distress type found on asphalt pavements at North Dakota airports is longitudinal and transverse (L&T) cracking. This distress can be caused by any of the following: (1) separation of pavement at paving lane joints, (2) shrinkage of AC pavement due to temperature differentials in older or brittle pavements, or (3) reflection cracking from underlying faults in supportive layers of pavement or subgrade. Cracking is also a common distress type for PCC pavement. This distress is caused by a combination of load repetition, curling stresses, and shrinkage stresses.

RAVELING. As pavements age and are exposed to oxidation and other environmental stresses, they may experience a loss in the material making up the pavement matrix. Raveling is the dislodging and loss of coarse aggregate in the surface of a pavement. The pavement may be showing signs of aging and hardening and may result in the production of FOD.

SPALLING. Spalling, in PCC pavement, is the breakdown of the slab edges in close proximity to the slab joint. Spalling is identified as occurring in the corner or along the joint of a PCC slab. Spalling is typically caused by the introduction of incompressible material in the joint, weaker pavement at the joint caused by overworking of the pavement during construction, traffic loading or a combination of these.



WEATHERING. As pavements age and are exposed to oxidation and other environmental stresses, they may experience a loss in the material making up the pavement matrix. Weathering is the loss of asphalt binder and fine aggregate in the surface of the pavement. The loss of fine matrix material in the surface may eventually lead to the exposure and dislodging of coarse aggregate, leading to raveling and FOD.

Pavement Classification Number (PCN)

A PCN is a value that indicates the strength of a pavement as it relates to aircraft classification numbers, which are assigned to each type of aircraft. Aircraft traffic information as well as subgrade and pavement strengths are critical inputs in determining this value. Pavements at the commercial service airports were analyzed in 2012 to provide a PCN value as detailed in FAA Advisory Circular 150/5335-5B, *Standardized Methods of Reporting Airport Pavement Strength – PCN*.

The PCN is expressed as a five-part code. The first part of the PCN is a numerical value indicating the load-carrying capacity of the pavement. This numerical value is followed by four codes representing the following categories:

- **PAVEMENT TYPE**
  - **R = Rigid**
  - **F = Flexible**
- **SUBGRADE STRENGTH**
  - **A = High** (k-value ≥ 442 psi/in or CBR ≥ 13)
  - **B = Medium** (221 psi/in < k-value < 442 psi/in or 8 < CBR < 13)
  - **C = Low** (92 psi/in < k-value ≤ 221 psi/in or 4 < CBR ≤ 8)
  - **D = Ultra Low** (k-value ≤ 92 psi/in or CBR ≤ 4)
- **MAXIMUM ALLOWABLE TIRE PRESSURE**
  - **W = High** (no pressure limit)
  - **X = Medium** (146 to 218 psi)
  - **Y = Low** (74 to 145 psi)
  - **Z = Ultra Low** (pressure limited to 73 psi)
- **PAVEMENT EVALUATION METHOD**
  - **T = Technical Evaluation**
  - **U = Using Aircraft Evaluation**

PCN results were not calculated as part of the 2015 study. **The 2012 PCN results for the Bismarck Municipal Airport are listed in the table below.** A detailed PCN report can be found online on the NDAC website, www.aero.nd.gov.

2012 PCN Results

BRANCH ID	PCN
Runway 13-31	42 F/A/W/T
Runway 3-21	26 F/A/W/T

Analysis of Results

Three analyses were completed as part of this project. The first details the existing PCI values and an estimated prediction of future pavement conditions if no maintenance or repair is completed. The second applies work policies and unit costs to develop a pavement funding assessment using an unlimited budget five-year maintenance and rehabilitation (M&R) plan. Money identified in an unlimited budget scenario is to maintain or rehabilitate existing infrastructure and does not include any additional needs or improvements made. The third identifies any major M&R work recommended for runway sections beyond the current five-year plan.

Critical PCI Values

For each year of the analysis, the future condition of each of the pavements was estimated and a determination was made as to whether preventive maintenance or major rehabilitation/reconstruction was the appropriate and most cost-effective method of maintaining pavement life. If a pavement was projected to be above the critical PCI values listed below, the pavement was recommended for preventive maintenance. Major rehabilitation/reconstruction was recommended for any PCI value below the PCI critical thresholds. Surface treatments were identified for viable candidates that exhibited weathering and/or raveling. These were identified separate from the critical value analysis.

- **60 for general aviation taxiways and aprons**
- **65 for commercial service taxiways and aprons**
- **70 for general aviation runways**
- **75 for commercial service runways**

Condition Forecast Analysis

The **Bismarck Municipal Airport** was divided into multiple sample sections and an overall area-weighted pavement condition was assigned to each section. **The airport was inspected in September of 2015 and has an overall area-weighted PCI of 69, with conditions ranging from 2 to 100.**

This data is summarized on the PCI map shown on page 10. Numerous distresses were identified on the airport's pavements. Most notable distresses include but are not limited to:

- **Medium-severity weathering**
- **Low- and medium-severity L & T cracking**
- **Medium-severity raveling**

The condition forecast analysis utilized pavement performance models to estimate future conditions for the next 10-year period if no repair work is completed at the airport. The *Overall Pavement Condition* table shown provides a summary of the overall 2015 PCI values and the projected PCI values identified in each of the sections developed for the airport. In addition, the *Area-Weighted PCI by Use* chart shows the area-weighted PCI value based on the use of the pavement on the airfield.

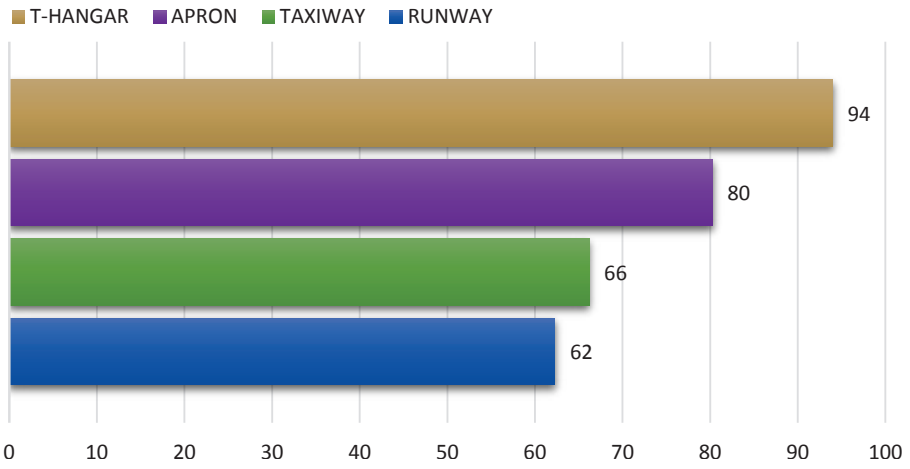
Overall Pavement Condition

BRANCH ID	SECTION ID	2015	2020	2025
AEW-BK	10	61	52	44
AGA-BK	10	100	94	87
AGA-BK	20	100	89	76
AGA-BK	35	98	91	84
AGA-BK	40	81	73	65
AGA-BK	50	98	91	84
AGA-BK	53	31	13	0
AGA-BK	54	47	38	29
AGA-BK	55	79	71	63
AGA-BK	56	88	75	61
AGA-BK	57	96	89	82
AGA-BK	63	61	52	44
AGA-BK	66	42	33	24
AGA-BK	68	61	52	44
AGA-BK	70	78	70	62
AGA-BK	75	75	67	59
ATERM-BK	25	97	90	83
ATERM-BK	30	97	90	83
ATERM-BK	35	97	90	83
ATERM-BK	40	61	45	28
ATERM-BK	45	29	10	0
ATERM-BK	5	98	91	84
ATERM-BK	55	76	68	60
ATERM-BK	60	75	67	59
ATERM-BK	65	41	23	5
RW1331-BK	10	49	39	26
RW1331-BK	15	94	83	74
RW1331-BK	25	34	21	9
RW1331-BK	30	90	80	71
RW1331-BK	35	32	19	7
RW1331-BK	40	44	32	19
RW1331-BK	45	51	42	30
RW1331-BK	47	74	66	60
RW1331-BK	5	46	34	22

BRANCH ID	SECTION ID	2015	2020	2025
RW1331-BK	50	43	30	18
RW1331-BK	55	34	21	9
RW1331-BK	57	92	81	73
RW1331-BK	60	35	22	10
RW1331-BK	65	61	47	34
RW321-BK	10	61	55	48
RW321-BK	15	82	70	56
RW321-BK	20	84	72	59
RW321-BK	25	54	46	35
RW321-BK	30	75	67	61
RW321-BK	5	73	65	59
TH-BK	5	94	83	71
TWB-BK	5	94	85	73
TWC1-BK	25	39	26	16
TWC2-BK	20	38	25	15
TWC2-BK	35	42	29	18
TWC3-BK	15	36	24	14
TWC3-BK	16	40	27	16
TWC4-BK	5	72	65	58
TWC4-BK	95	37	24	14
TWC5-BK	25	57	50	41
TWC-BK	10	72	65	58
TWC-BK	15	72	65	58
TWC-BK	20	65	59	52
TWC-BK	30	40	27	16
TWC-BK	35	79	66	53
TWC-BK	40	39	26	16
TWD1-BK	10	69	62	56
TWD2-BK	5	71	64	58
TWD-BK	10	75	67	61
TWD-BK	11	76	63	49

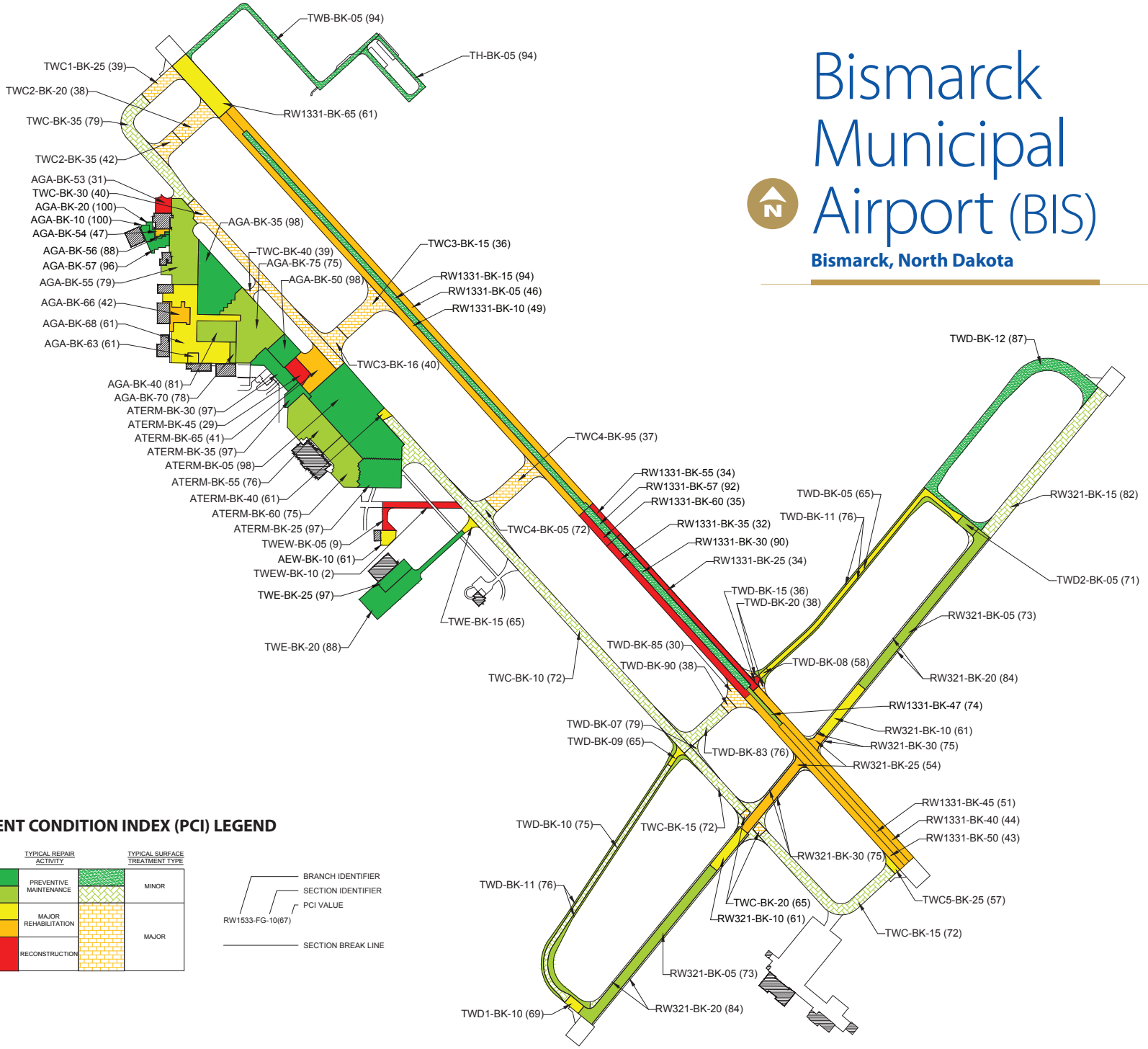
BRANCH ID	SECTION ID	2015	2020	2025
TWD-BK	12	87	75	63
TWD-BK	15	36	23	11
TWD-BK	20	38	25	13
TWD-BK	5	65	59	52
TWD-BK	7	79	70	63
TWD-BK	8	58	51	43
TWD-BK	83	76	68	61
TWD-BK	85	30	17	5
TWD-BK	9	65	59	52
TWD-BK	90	38	25	13
TWE-BK	15	65	51	38
TWE-BK	20	88	84	80
TWE-BK	25	97	93	89
TWEW-BK	10	2	0	0
TWEW-BK	5	9	0	0

Area-Weighted PCI by Use

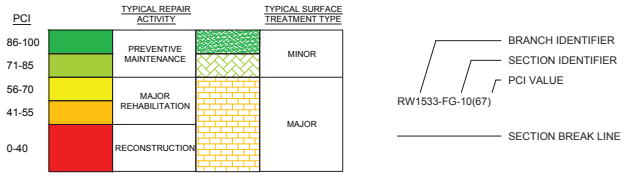


Bismarck Municipal Airport (BIS)

Bismarck, North Dakota



PAVEMENT CONDITION INDEX (PCI) LEGEND



Get *Your* Airport's Pavement Distress Level

For information on pavement distresses specific to your airport, visit the Interactive Data Exchange Application (IDEA) website by going to www.aero.nd.gov and navigating to "Studies" then "Pavement Condition Index" then "Click Here." Once there, you can view a list of the distresses that were identified as well as a maintenance and rehabilitation plan. The IDEA site also contains photos of your airport along with an interactive version of your PCI map.

Pavement Funding Assessment

Funding for aviation projects within the state is crucial in order to maintain a steady pavement condition and ensure safety of all aviation users. If no funding is provided for pavement maintenance and repair, North Dakota's pavement system will experience a slow and steady decline in condition. This decline would result in a need for more major rehabilitation or reconstruction projects, which in turn significantly increases future cost.

Using the information collected during the pavement inspection, a rehabilitation program for 2016 through 2020 was developed for Bismarck Municipal Airport. A five-year program was prepared with the goal of maintaining the pavement above the established critical PCI values listed earlier in this report. The program generates a major rehabilitation recommendation for pavement in the year they drop below their critical PCI.

For the first year of the analysis only, a localized preventive maintenance plan was developed for the pavement sections that were above their critical PCI and where the distress types present were viable candidates for this type of repair. As the pavements age, the amount of localized maintenance required will increase. The NDAC recommends that the airport anticipate performing maintenance activities as the pavements age and use the 2016 maintenance plan as a baseline for that work. The PCI value of pavements displaying large quantities of weathering and raveling can be increased significantly by applying a surface treatment. This type of repair has been identified where applicable.

The unlimited budget funding needs through 2020 for the Bismarck Municipal Airport are summarized in the table that follows. This analysis is for 2016 through 2020 with an inflation factor of four percent when calculating future cost of work. The unit costs used to estimate overall project costs are based on averages of recent projects completed throughout the state. These costs are averages and are not intended to be used for specific project planning purposes.

Five-Year Funding Plan

PLANNED WORK YEAR	BRANCH ID	SECTION ID	PROJECTED PCI BEFORE WORK	PROJECTED PCI AFTER WORK	PREVENTIVE MAINTENANCE COST	SURFACE TREATMENT COST	MAJOR M&R COST	ESTIMATED TOTAL COST
2016	AEW-BK	10	61	100	$0	$0	$138,277	$138,277
2016	AGA-BK	35	98	99	$2,056	$0	$0	$2,056
2016	AGA-BK	40	81	81	$7,743	$0	$0	$7,743
2016	AGA-BK	53	30	100	$0	$0	$196,595	$196,595
2016	AGA-BK	54	47	100	$0	$0	$65,531	$65,531
2016	AGA-BK	55	79	82	$4,618	$0	$0	$4,618
2016	AGA-BK	57	96	99	$3,802	$0	$0	$3,802
2016	AGA-BK	63	61	100	$0	$0	$76,165	$76,165
2016	AGA-BK	66	42	100	$0	$0	$383,281	$383,281
2016	AGA-BK	68	61	100	$0	$0	$1,831,725	$1,831,725

PLANNED WORK YEAR	BRANCH ID	SECTION ID	PROJECTED PCI BEFORE WORK	PROJECTED PCI AFTER WORK	PREVENTIVE MAINTENANCE COST	SURFACE TREATMENT COST	MAJOR M&R COST	ESTIMATED TOTAL COST
2016	AGA-BK	75	75	80	$18,595	$0	$0	$18,595
2016	ATERM-BK	40	60	100	$0	$0	$50,103	$50,103
2016	ATERM-BK	45	28	100	$0	$0	$270,569	$270,569
2016	ATERM-BK	55	76	80	$77,644	$0	$0	$77,644
2016	ATERM-BK	60	75	80	$75,177	$0	$0	$75,177
2016	ATERM-BK	65	40	100	$0	$0	$723,599	$723,599
2016	RW1331-BK	5	45	100	$0	$0	$2,269,309	$2,269,309
2016	RW1331-BK	10	49	100	$0	$0	$2,021,952	$2,021,952
2016	RW1331-BK	15	94	99	$0	$144,014	$0	$144,014
2016	RW1331-BK	25	33	100	$0	$0	$792,350	$792,350
2016	RW1331-BK	30	90	96	$0	$73,109	$0	$73,109
2016	RW1331-BK	35	31	100	$0	$0	$1,036,627	$1,036,627
2016	RW1331-BK	40	43	100	$0	$0	$1,015,844	$1,015,844
2016	RW1331-BK	45	51	100	$0	$0	$598,767	$598,767
2016	RW1331-BK	47	74	100	$0	$0	$54,909	$54,909
2016	RW1331-BK	50	42	100	$0	$0	$1,068,356	$1,068,356
2016	RW1331-BK	55	33	100	$0	$0	$156,009	$156,009
2016	RW1331-BK	57	92	98	$0	$15,127	$0	$15,127
2016	RW1331-BK	60	34	100	$0	$0	$207,480	$207,480
2016	RW1331-BK	65	60	100	$0	$0	$678,570	$678,570
2016	RW321-BK	5	73	100	$0	$0	$1,076,654	$1,076,654
2016	RW321-BK	10	61	100	$0	$0	$523,228	$523,228
2016	RW321-BK	15	82	90	$961	$117,234	$0	$118,195
2016	RW321-BK	20	84	94	$1,341	$81,666	$0	$83,007
2016	RW321-BK	25	54	100	$0	$0	$534,762	$534,762
2016	RW321-BK	30	75	93	$1,095	$92,531	$0	$93,626
2016	TH-BK	5	94	100	$0	$30,284	$0	$30,284
2016	TWB-BK	5	94	100	$0	$59,145	$0	$59,145
2016	TWC1-BK	25	39	91	$1,120	$55,084	$0	$56,204
2016	TWC2-BK	20	38	94	$1,035	$74,825	$0	$75,860
2016	TWC2-BK	35	42	97	$0	$47,248	$0	$47,248

Five-Year Funding Plan (continued)

PLANNED WORK YEAR	BRANCH ID	SECTION ID	PROJECTED PCI BEFORE WORK	PROJECTED PCI AFTER WORK	PREVENTIVE MAINTENANCE COST	SURFACE TREATMENT COST	MAJOR M&R COST	ESTIMATED TOTAL COST
2016	TWC3-BK	15	36	91	$1,969	$101,412	$0	$103,381
2016	TWC3-BK	16	40	96	$445	$47,870	$0	$48,315
2016	TWC4-BK	5	72	92	$671	$21,226	$0	$21,897
2016	TWC4-BK	95	37	80	$6,714	$102,211	$0	$108,925
2016	TWC5-BK	25	57	100	$0	$0	$59,490	$59,490
2016	TWC-BK	10	72	88	$3,625	$230,501	$0	$234,126
2016	TWC-BK	15	72	90	$4,085	$135,880	$0	$139,965
2016	TWC-BK	20	65	81	$526	$7,644	$0	$8,170
2016	TWC-BK	30	40	92	$0	$227,478	$0	$227,478
2016	TWC-BK	35	79	99	$0	$84,962	$0	$84,962
2016	TWC-BK	40	39	95	$133	$12,714	$0	$12,847
2016	TWD1-BK	10	69	78	$554	$0	$0	$554
2016	TWD2-BK	5	71	78	$649	$0	$0	$649
2016	TWD-BK	5	65	100	$0	$0	$525,250	$525,250
2016	TWD-BK	7	79	93	$158	$4,448	$0	$4,606
2016	TWD-BK	8	58	100	$0	$0	$26,807	$26,807
2016	TWD-BK	9	65	100	$0	$0	$44,889	$44,889
2016	TWD-BK	10	75	80	$1,916	$62,993	$0	$64,909
2016	TWD-BK	11	75	100	$0	$0	$681,671	$681,671
2016	TWD-BK	12	87	90	$759	$132,413	$0	$133,172
2016	TWD-BK	15	35	100	$0	$0	$35,073	$35,073
2016	TWD-BK	20	38	87	$433	$11,326	$0	$11,759
2016	TWD-BK	83	76	91	$1,467	$33,735	$0	$35,202
2016	TWD-BK	85	30	82	$655	$32,760	$0	$33,415
2016	TWD-BK	90	38	85	$545	$12,137	$0	$12,682
2016	TWE-BK	15	65	97	$0	$11,513	$0	$11,513
2016	TWE-BK	20	88	94	$83,636	$0	$0	$83,636
2016	TWEW-BK	5	9	100	$0	$0	$122,567	$122,567
2016	TWEW-BK	10	2	100	$0	$0	$341,636	$341,636
2016 Total					**$304,127**	**$2,063,490**	**$17,608,045**	**$19,975,662**

PLANNED WORK YEAR	BRANCH ID	SECTION ID	PROJECTED PCI BEFORE WORK	PROJECTED PCI AFTER WORK	PREVENTIVE MAINTENANCE COST	SURFACE TREATMENT COST	MAJOR M&R COST	ESTIMATED TOTAL COST
2017								No work identified for 2017
2017 Total					**$0**	**$0**	**$0**	**$0**
2018								No work identified for 2018
2018 Total					**$0**	**$0**	**$0**	**$0**
2019	TWD1-BK	10	64	100	$0	$0	$75,238	$75,238
2019 Total					**$0**	**$0**	**$75,238**	**$75,238**
2020	TWD2-BK	5	65	100	$0	$0	$90,419	$90,419
2020 Total					**$0**	**$0**	**$90,419**	**$90,419**
Five-Year Plan Total					**$304,127**	**$2,063,490**	**$17,773,702**	**$20,141,319**

Future Runway Needs

A future runway needs analysis was conducted to help the state plan for major runway repair or reconstruction projects that are anticipated post 2020. The results provide an indication of the timing of future runway needs by applying an averaged deterioration rate developed from similar pavements throughout the state. Therefore, in addition to the five-year funding plan, the following table details all anticipated runway pavement needs post 2020.

PLANNED WORK YEAR	BRANCH ID	SECTION ID	PROJECTED PCI BEFORE WORK	PROJECTED PCI AFTER WORK	PREVENTIVE MAINTENANCE COST	MAJOR M&R COST	ESTIMATED TOTAL COST
2021	RW321-BK	15	69	100	$0	$700,001	$700,001
2021	RW321-BK	20	71	100	$0	$453,351	$453,351
2021	RW321-BK	30	67	100	$0	$245,084	$245,084
2021 Total					**$0**	**$1,398,436**	**$1,398,436**
2024	RW1331-BK	30	74	100	$0	$456,522	$456,522
2024 Total					**$0**	**$456,522**	**$456,522**
2025	RW1331-BK	57	74	100	$0	$98,240	$98,240
2025 Total					**$0**	**$98,240**	**$98,240**
2026	RW1331-BK	15	74	100	$0	$972,666	$972,666
2026 Total					**$0**	**$972,666**	**$972,666**

Summary

This report summarizes the results of the pavement evaluation conducted at Bismarck Municipal Airport. The airport is a commercial service, NPIAS airport. **In 2012, the PCI value for the airport was 78. During a visual inspection of the pavement in 2015, it was found that the current weighted PCI of the pavement network is 69.** If all the work identified at the airport were to be completed on existing pavements as shown in the Pavement Funding Assessment section of this report, approximately $20.1 million in funding would be needed over the next five years to maintain the pavement above their critical PCI levels. Additional information can be found by visiting the NDAC website, **www.aero.nd.gov**.

BISMARCK MUNICIPAL AIRPORT (BIS) BISMARCK, ND

NORTH DAKOTA AERONAUTICS COMMISSION

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